

SEQUENCE LISTING

(1) GENERAL INFORMATION:

- (i) APPLICANT: Salerno, John C.
- (ii) TITLE OF INVENTION: APPLICATIONS FOR REGULATORY REGION OF NOS ISOFORMS
- (iii) NUMBER OF SEQUENCES: 35
- (iv) CORRESPONDENCE ADDRESS:
  - (A) ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
  - (B) STREET: Two Militia Drive
  - (C) CITY: Lexington
  - (D) STATE: Massachusetts
  - (E) COUNTRY: USA
  - (F) ZIP: 02173
- (v) COMPUTER READABLE FORM:
  - (A) MEDIUM TYPE: Floppy disk
  - (B) COMPUTER: IBM PC compatible
  - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
  - (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
- (vi) CURRENT APPLICATION DATA:
  - (A) APPLICATION NUMBER: US 08/679,006
  - (B) FILING DATE: 12-JUL-1996
  - (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:
  - (A) NAME: Brook, David E.
  - (B) REGISTRATION NUMBER: 22,592
  - (C) REFERENCE/DOCKET NUMBER: JCS96-01
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(2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 45 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS:
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Met Ser Gly Pro Tyr Asn Ser Ser Pro Arg Pro Glu Gln His Lys Ser  
1 5 10 15

Tyr Lys Ile Arg Phe Asn Ser Val Ser Cys Ser Asp Pro Leu Val Ser  
20 25 30

Ser Trp Arg Arg Lys Arg Lys Glu Ser Ser Asn Thr Asp  
35 40 45

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 43 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Met	Arg	His	Pro	Asn	Ser	Val	Gln	Glu	Glu	Arg	Lys	Ser	Tyr	Lys	Val
1						5			10					15	
Arg	Phe	Asn	Ser	Val	Ser	Ser	Tyr	Ser	Asp	Ser	Arg	Lys	Ser	Ser	Gly
				20				25					30		
Asp	Gly	Pro	Asp	Leu	Leu	Arg	Asp	Asn	Phe	Glu					
				35				40							

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 16 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Lys	Lys	Ser	Leu	Phe	Met	Leu	Arg	Glu	Leu	Asn	His	Thr	Phe	Arg	Tyr
1					5				10				15		

(2) INFORMATION FOR SEQ ID NO:4:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 14 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Gln	Tyr	Lys	Ala	Ser	Thr	Leu	Glu	Glu	Gln	Leu	Leu	Leu			
1						5			10						

(2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 15 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

His Asp Ile Asp Gln Lys Leu Ser His Leu Gly Ala Ser Gln Leu  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:6:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 14 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Glu Tyr Asp Val Val Ser Leu Glu His Glu Ala Leu Val Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO:7:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 15 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Ala Ala Val Asp Thr Arg Leu Glu Glu Leu Gly Gly Glu Arg Leu  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:8:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 14 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Glu Tyr Asp Ile Val His Leu Glu His Glu Ala Leu Val Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO:9:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

His Ala Val Asp Thr Leu Leu Glu Glu Leu Gly Gly Glu Arg Ile  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Arg Arg Lys Arg Lys  
1 5

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Lys Lys Arg Lys Arg  
1 5

(2) INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 6 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

Trp Arg Arg Lys Arg Lys  
1 5

(2) INFORMATION FOR SEQ ID NO:13:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 11 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

Ser Ser Trp Arg Arg Lys Arg Lys Glu Ser Ser  
1 5 10

(2) INFORMATION FOR SEQ ID NO:14:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 36 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

Ser Ser Pro Arg Pro Glu Gln His Lys Ser Tyr Lys Ile Arg Phe Asn  
1 5 10 15

Ser Val Ser Cys Ser Asp Pro Leu Val Ser Ser Trp Arg Arg Lys Arg  
20 25 30

Lys Glu Ser Ser  
35

(2) INFORMATION FOR SEQ ID NO:15:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 28 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

Gln His Lys Ser Tyr Lys Ile Arg Phe Asn Ser Val Ser Cys Ser Asp  
1 5 10 15

Pro Leu Val Ser Ser Trp Arg Arg Lys Arg Lys Glu  
20 25

(2) INFORMATION FOR SEQ ID NO:16:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 11 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

Gln Glu Glu Arg Lys Ser Tyr Lys Val Arg Phe  
1 5 10

(2) INFORMATION FOR SEQ ID NO:17:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 12 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

Arg Pro Glu Gln His Lys Ser Tyr Lys Ile Arg Phe  
1 5 10

(2) INFORMATION FOR SEQ ID NO:18:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 14 amino acids  
(B) TYPE: amino acid

- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

Ser Asp Ser Arg Lys Ser Ser Gly Asp Gly Pro Asp Leu Arg  
1 5 10

(2) INFORMATION FOR SEQ ID NO:19:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 30 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS:
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

Gln Glu Glu Arg Lys Ser Tyr Lys Val Arg Phe Asn Ser Val Ser Ser  
1 5 10 15

Tyr Ser Asp Ser Gln Lys Ser Ser Gly Asp Gly Pro Asp Leu  
20 25 30

(2) INFORMATION FOR SEQ ID NO:20:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS:
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

Thr Glu Thr Gly Lys Ser Glu Ala Leu Ala  
1 5 10

(2) INFORMATION FOR SEQ ID NO:21:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS:
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

Thr Asp Thr Gly Lys Thr Glu Ala Leu Ala  
1 5 10

(2) INFORMATION FOR SEQ ID NO:22:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

Ala Val Asp Thr Leu Leu Glu Glu Leu Gly Gly Glu Arg Thr  
1 5 10

(2) INFORMATION FOR SEQ ID NO:23:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

Asp Ile Asp Gln Lys Leu Ser His Leu Gly Ala Ser Gln Thr  
1 5 10

(2) INFORMATION FOR SEQ ID NO:24:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

Asp Asp Val Val Ser Leu Glu His Glu Thr  
1 5 10

(2) INFORMATION FOR SEQ ID NO:25:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

Asp Ile Val His Leu Glu His Glu Ser  
1 5

(2) INFORMATION FOR SEQ ID NO:26:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

Lys Ala Ser Thr Leu Glu Glu Glu Gln  
1 5

(2) INFORMATION FOR SEQ ID NO:27:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 12 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

Arg Pro Glu Gln His Lys Ser Tyr Lys Ile Arg Phe  
1 5 10

(2) INFORMATION FOR SEQ ID NO:28:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 30 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

Gln	Glu	Glu	Arg	Lys	Ser	Tyr	Lys	Val	Arg	Phe	Asn	Ser	Val	Ser	Ser
1					5				10						15
Tyr	Ser	Asp	Ser	Arg	Lys	Ser	Ser	Gly	Asp	Gly	Pro	Asp	Leu		
					20			25					30		

(2) INFORMATION FOR SEQ ID NO:29:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 135 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

Glu	Ser	Ser	Phe	Val	Glu	Lys	Met	Lys	Lys	Thr	Gly	Arg	Asn	Ile	Ile
1					5				10						15
Val	Phe	Tyr	Gly	Ser	Gln	Thr	Gly	Thr	Ala	Glu	Glu	Phe	Ala	Asn	Arg
					20			25					30		
Leu	Ser	Lys	Asp	Ala	His	Arg	Tyr	Gly	Met	Arg	Gly	Met	Ser	Ala	Asp
					35			40					45		
Pro	Glu	Glu	Tyr	Asp	Leu	Ala	Asp	Leu	Ser	Ser	Leu	Pro	Glu	Ile	Asp
					50			55			60				
Asn	Ala	Leu	Val	Val	Phe	Cys	Met	Ala	Thr	Tyr	Gly	Glu	Gly	Asp	Pro
					65			70		75					80
Thr	Asp	Asn	Ala	Gln	Asp	Phe	Tyr	Asp	Trp	Leu	Gln	Glu	Thr	Asp	Val
					85			90					95		
Asp	Leu	Ser	Gly	Val	Lys	Phe	Ala	Val	Phe	Gly	Leu	Gly	Asn	Lys	Thr
					100			105					110		
Tyr	Glu	His	Phe	Asn	Ala	Met	Gly	Lys	Tyr	Val	Asp	Lys	Arg	Leu	Glu
					115			120				125			
Gln	Leu	Gly	Ala	Gln	Arg	Ile									
					130			135							

(2) INFORMATION FOR SEQ ID NO:30:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 168 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

Gly Thr Leu Met Ala Lys Arg Val Lys Ala Thr Ile Leu Tyr Ala Ser  
1 5 10 15

Glu Thr Gly Arg Ala Gln Ser Tyr Ala Gln Gln Leu Gly Arg Leu Phe  
20 25 30

Arg Lys Ala Phe Asp Pro Arg Val Leu Cys Met Asp Glu Tyr Asp Val  
35 40 45

Val Ser Leu Glu His Glu Thr Leu Val Leu Val Val Thr Ser Thr Phe  
50 55 60

Gly Asn Gly Asp Pro Pro Glu Asn Gly Glu Ser Phe Ala Ala Ala Leu  
65 70 75 80

Met Glu Met Ser Gly Pro Tyr Asn Ser Ser Pro Arg Pro Glu Gln His  
85 90 95

Lys Ser Tyr Lys Ile Arg Phe Asn Ser Val Ser Cys Ser Asp Pro Leu  
100 105 110

Val Ser Ser Trp Arg Arg Lys Arg Lys Glu Ser Ser Asn Thr Asp Ser  
115 120 125

Ala Gly Ala Gly Thr Leu Arg Phe Leu Cys Val Phe Gly Leu Gly Ser  
130 135 140

Arg Ala Tyr Pro His Phe Cys Ala Phe Ala Ala Val Asp Thr Arg Leu  
145 150 155 160

Glu Glu Leu Gly Gly Glu Arg Leu  
165

(2) INFORMATION FOR SEQ ID NO:31:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 166 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

Gly Gln Ala Met Ala Lys Arg Val Lys Ala Thr Ile Leu Tyr Ala Thr  
1 5 10 15

Glu Thr Gly Lys Ser Gln Ala Tyr Ala Lys Thr Leu Cys Glu Ile Phe  
20 25 30

Lys His Ala Phe Asp Ala Lys Ala Met Ser Met Glu Glu Tyr Asp Ile  
35 40 45

Val His Leu Glu His Glu Ala Leu Val Leu Val Val Thr Ser Thr Phe  
50 55 60

Gly Asn Gly Asp Pro Pro Glu Asn Gly Glu Lys Phe Gly Cys Ala Leu  
65 70 75 80

Met Glu Met Arg His Pro Asn Ser Val Gln Glu Glu Arg Lys Ser Tyr  
85 90 95

Lys Val Arg Phe Asn Ser Val Ser Ser Tyr Ser Asp Ser Arg Lys Ser  
100 105 110

Ser Gly Asp Gly Pro Asp Leu Arg Asp Asn Phe Glu Ser Thr Gly Pro  
115 120 125

Leu Ala Asn Val Arg Phe Ser Val Phe Gly Leu Gly Ser Arg Ala Tyr  
130 135 140

Pro His Phe Cys Ala Phe Gly His Ala Val Asp Thr Leu Leu Glu Glu  
145 150 155 160

Leu Gly Gly Glu Arg Ile  
165

(2) INFORMATION FOR SEQ ID NO:32:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 123 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

Arg Lys Val Met Ala Ser Arg Val Arg Ala Thr Val Leu Phe Ala Thr  
1 5 10 15

Glu Thr Gly Lys Ser Glu Ala Leu Ala Arg Asp Leu Ala Thr Leu Phe  
20 25 30

Ser Tyr Ala Phe Asn Thr Lys Val Val Cys Met Asp Gln Tyr Lys Ala  
35 40 45

Ser Thr Leu Glu Glu Glu Gln Leu Leu Leu Val Val Thr Thr Phe Gly  
50 55 60

Asn Gly Asp Cys Pro Ser Asn Gly Gln Thr Leu Lys Lys Ser Leu Phe  
65 70 75 80  
Met Leu Arg Glu Leu Asn His Thr Phe Arg Tyr Ala Val Phe Gly Leu  
85 90 95  
Gly Ser Ser Met Tyr Pro Gln Phe Cys Ala Phe Ala His Asp Ile Asp  
100 105 110  
Gln Lys Leu Ser His Leu Gly Ala Ser Gln Leu  
115 120

(2) INFORMATION FOR SEQ ID NO:33:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 116 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:

Ala Ile Thr Gly Ile Phe Phe Gly Ser Asp Thr Gly Asn Thr Glu Asn  
1 5 10 15  
Ile Ala Lys Met Ile Gln Lys Gln Leu Gly Lys Asp Val Ala Asp Val  
20 25 30  
His Asp Ile Ala Lys Ser Ser Lys Glu Asp Leu Glu Ala Tyr Asp Ile  
35 40 45  
Leu Leu Leu Gly Ile Pro Thr Trp Tyr Tyr Gly Glu Ala Gln Cys Asp  
50 55 60  
Trp Asp Asp Phe Phe Pro Thr Leu Glu Glu Ile Asp Phe Asn Gly Lys  
65 70 75 80  
Leu Val Ala Leu Phe Gly Cys Gly Asp Gln Glu Asp Tyr Ala Glu Tyr  
85 90 95  
Phe Cys Asp Ala Leu Gly Thr Ile Arg Asp Ile Ile Glu Pro Arg Gly  
100 105 110  
Ala Thr Ile Val  
115

(2) INFORMATION FOR SEQ ID NO:34:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 120 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:

Met Pro Lys Ala Leu Ile Val Tyr Gly Ser Thr Thr Gly Asn Thr Glu  
1 5 10 15

Tyr Thr Ala Glu Thr Ile Ala Arg Glu Leu Ala Asp Ala Gly Tyr Glu  
20 25 30

Val Asp Ser Arg Asp Ala Ala Ser Val Glu Ala Gly Gly Leu Phe Glu  
35 40 45

Gly Phe Asp Leu Val Leu Leu Gly Cys Ser Thr Trp Gly Asp Asp Ser  
50 55 60

Ile Glu Leu Gln Asp Asp Phe Ile Pro Leu Phe Asp Ser Leu Glu Glu  
65 70 75 80

Thr Gly Ala Gln Gly Arg Lys Val Ala Cys Phe Gly Cys Gly Asp Ser  
85 90 95

Ser Tyr Glu Tyr Phe Cys Gly Ala Val Asp Ala Ile Glu Glu Lys Leu  
100 105 110

Lys Asn Leu Gly Ala Glu Ile Val  
115 120

(2) INFORMATION FOR SEQ ID NO:35:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:

Ala Val Asp Thr Arg Leu Glu Glu Leu Gly Glu Arg Thr  
1 5 10